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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,872	09/15/2000	J Michael Sanchez	D/A0664	4185

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EXAMINER

BAREFORD, KATHERINE A

ART UNIT	PAPER NUMBER
1762	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/663,872	SANCHEZ ET AL.	
	Examiner Katherine A. Bareford	Art Unit 1762	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
<b>Period for Reply</b>			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.			
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>			
<b>Status</b>			
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>05 May 2003</u> . 2a) <input checked="" type="checkbox"/> This action is <b>FINAL</b> .                    2b) <input type="checkbox"/> This action is non-final. 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
<b>Disposition of Claims</b>			
4) <input checked="" type="checkbox"/> Claim(s) <u>1-27</u> is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) <input type="checkbox"/> Claim(s) _____ is/are allowed. 6) <input checked="" type="checkbox"/> Claim(s) <u>1,4-12,15-21,23 and 25-27</u> is/are rejected. 7) <input type="checkbox"/> Claim(s) _____ is/are objected to. 8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.			
<b>Application Papers</b> <i>Claims 2-3, 13-14, 22 and 24 are canceled.</i>			
9) <input type="checkbox"/> The specification is objected to by the Examiner. 10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. 12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.			
<b>Priority under 35 U.S.C. §§ 119 and 120</b>			
13) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 14) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received. 15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.			
<b>Attachment(s)</b>			
1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.	

## DETAILED ACTION

1. The amendment of May 5, 2003 has been received and entered.

### *Claim Objections*

2. The objection to claim 24 under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim, is withdrawn due to applicant's cancellation of the claim.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The rejection of claims 1, 4-12 and 15-19 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn due to applicant's amendment's and discussion.

As to claim 1, line 7, the Examiner notes that "primary articles" has been amended to read "primary particles".

Further as to claim 1, line 7, "primary particles are separated in the resulting sonicated stream", the Examiner notes that applicant has not indicated that the particles "are separated from the resulting sonicated stream" as described in the specification at page 8, lines 5-10.

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Thus, as worded, the phrase merely require that the particles not be re-agglomerated in the stream, so that the particles are separate from one another in the stream.

*Claim Rejections - 35 USC § 102*

✓<sup>183</sup> 5. The rejection of claims 21 and 26 ~~A~~ under 35 U.S.C. 102(b) as being anticipated by EP 472 459 A1 (hereinafter '459) is withdrawn due to applicant's amendments to the claims to require a coater for/coating the resulting filtered stream onto a receiver.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-7, 10, 12, 16-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al (US 5576075) in view of Hochberg (US 3890240).

Kawasaki teaches a method and apparatus for sonicating, filtering and coating. Column 1, lines 5-15 and column 6, lines 35-55. A stream containing a dispersion is subjected to a sonicating treatment. Column 2, lines 35-55. The dispersion contains primary particles. Column 1, lines 20-25 and column 6, lines 35-55. The resulting sonicated stream containing a dispersion comprised of de-agglomerated primary particles is then filtered. Column 6, lines 35-

55. The particles are separated in the resulting stream because they are deagglomerated. The filtered and sonicated stream is then coated onto a receiver surface. Column 2, lines 45-55.

Claim 5: the primary particles are present in the stream in an amount that is between 0-60 wt% based on the total weight of the stream. See, for example, column 21, line 50 through column 22, line 25.

Claim 6: the de-agglomerated particles have a volume average diameter that is between 0.005 and 20 micrometers. See, for example, column 21, line 50 through column 22, line 25 (the diameter of the ferromagnetic particles is 0.08 micrometers, and the thickness of the provided coating is 1.5 micrometers).

Claim 10: the carrier for the stream includes a continuous phase liquid solvent. See, for example, column 21, line 50 through column 22, line 25 and column 15, line 55 through column 16, line 5.

Claim 12: the sonication is accomplished with at least one ultrasonic member. Column 4, lines 30-50 and column 6, lines 35-55.

Claim 14: the de-agglomerated primary particles are further separated from the stream. (note the drying of the solvent after coating). See column 22, lines 15-25.

Claim 17: the re-agglomeration of the de-agglomerated primary particles can occur. Column 8, lines 1-20.

Claim 19: the stream can further comprise a surfactant. Column 17, line 45 through column 18, line 15.

Claim 27: as discussed above, Kawasaki teaches an ultrasonicator, a filter and a coater system.

Kawasaki teaches all the features of these claims except (1) that the particles are agglomerated before being sonicated, (2) the stream pressure measurement (claim 16), (3) analyzing the sonicated stream (claim 18), (4) the coated photoreceptor surface (claim 1, 27), (5) the primary particles as toner (claims 4, 7), (6) the photosensitive particles (claim 20). Kawasaki does teach that the surface can be coated before the application of the filtered sonicated coating material. See column 2, lines 45-50.

Hochberg teaches a process for providing liquid dispersions of toner materials to be applied to a surface. Column 1, lines 5-15. The toner is in the form of particles including carbon black and a dye or pigment. Column 1, lines 55-68. The particles have a tendency to agglomerate, and it is necessary to control this agglomeration to provide desirable coating. Column 3, lines 15-35. As a way for dispersing the particles, Hochberg teaches high frequency, ultrasonic agitation. See column 20, lines 1-55. As taught, the particles would be photosensitive. See column 1, lines 5-30. The toner is applied to a charged photoconductive layer. See column 1, lines 15-30.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawasaki to provide the missing features of these claims in order to provide a desirable coated surface. Specifically, it would have been obvious to (1) modify Kawasaki to provide that the initial dispersion to be sonicated contains agglomerated particles with the expectation of achieving a desirable de-agglomerated coating material, because Kawasaki

teaches that the dispersion as initially provided is readily susceptible to agglomeration (see column 1, lines 20-25 and 45-55) and Kawasaki provides no limitation on how long the dispersion can be made before sonication treatment must be carried out, while providing specific times for when the treatment must be provided once sonication starts (see column 5, line 60 through column 6, line 30). (2) it would further have been obvious to modify Kawasaki to provide analyzing stream pressure before filtering with the expectation of providing a desirable coating, because Kawasaki teaches filtering the stream, and it is conventionally known in the art of filtering that stream pressure affects the results of filtering. (3) it would further have been obvious to modify Kawasaki to provide analyzing the sonicated stream for various undesirable particles with the expectation of providing a desirable coating, because Kawasaki teaches sonciating, and further provides examples of numerous analytical experiments on the stream so as to provide the optimum coating (see the examples). (4) It would further have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawasaki to use the sonicating process to also sonicate toner particles in dispersion as suggested by Hochberg with an expectation of desirable coating results, because Kawasaki teaches a desirable sonication process to provide dispersed particles, and Hochberg teaches that it is desirable to sonicate toner particles in liquid to provide a desirable dispersed dispersion. (5) It would further have been obvious to provide resin with the particles so as to provide a desirable coating, given the teaching of Hochberg of using resin in the toner dispersion (see column 1, lines 60-65). <sup>64</sup> (6) It would further have been obvious to modify Kawasaki in view of Hochberg to provide a coating photoreceptor substrate so as to provide a

desirable coating, given the teaching of Hochberg of the desirability of coating of the toner particles to such a substrate (see column 1, lines 15-30).

8. Claim 8-9 and 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view of Hochberg as applied to claims 1, 4-7, 10, 12, 16-20 and 27 above, and further in view of EP 472 459 A1 (hereinafter '459).

Kawasaki in view of Hochberg teach all the features of this claim except using a second sonicator to sonicate the filter (claim 15) and the filter purpose (claims 8-9).

However, '459 teaches an ultrasonicator is provided to ultrasonicate a stream of liquid dispersion of agglomerated primary particles. See the abstract and figure 1 (the ultrasonic mill 26). The treatments with the ultrasonicator breaks up the agglomerated particles to provide a stream of de-agglomerated particles. See the abstract and figure 1. A filter member is provided to filter the resulting ultrasonicated stream containing a dispersion of de-agglomerated primary particles. See the abstract and figure 1 (filter 30). A second ultrasonicator can be provided to ultrasonicate the filter member so as to further break up agglomeration. See the abstract and figure 1 (note the ultrasonic transducers that the be incorporated in the filter). The filter removes particles that would otherwise be undesirably large. See abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawasaki in view of Hochberg to further provide a ultrasonicator for the filter as suggested by '459 with an expectation of desirable coating results, because Kawasaki in view of Hochberg teaches a desirable sonication process to provide dispersed particles that includes

filtration of the treated stream, and '459 teaches that it is desirable to further provide an ultrasonicator for a filter member after sonicating a stream of dispersed particles to break up the agglomeration so as to provide further de-agglomeration. It would further have been obvious to modify Kawasaki in view of Hochberg to provide that the filtering removes objectionable contaminants (i.e. particles of a size larger than the de-agglomerated particles) as suggested by '459 with an expectation of desirable coating results, because Kawasaki teaches filtering the sonicated dispersion, and '459 teaches that when filtering a sonicated dispersion, it is desirable to remove overly large particles.

9. Claims 21, 23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki (US 5576075) in view of EP 472 459 A1 (hereinafter '459).

Kawasaki teaches a method and apparatus for using an ultrasonicator is provided to ultrasonicate a stream of liquid dispersion of primary particles. Column 4, lines 30-50. The ultrasonicator would be able to treat agglomerated or unagglomerated particles, as the specific makeup of the dispersion is not part of the apparatus. A filter member is provided to filter the resulting ultrasonicate stream containing a dispersion of de-agglomerated primary particles. Column 6, lines 35-55.

Claim 22: a coater is provided to coat the filtered stream onto a receiver. Column 2, lines 35-55, column 20, lines 40-55 and figure 3.

Claim 23: the coated receiver is substantially free of agglomerated primary particles. Column 1, lines 5-20 and column 36, lines 1-10.

Kawasaki teaches all the features of these claims except for the treatment using a second sonicator to sonicate the filter.

However, '459 teaches an ultrasonicator is provided to ultrasonicate a stream of liquid dispersion of agglomerated primary particles. See the abstract and figure 1 (the ultrasonic mill 26). The treatments with the ultrasonicator breaks up the agglomerated particles to provide a stream of de-agglomerated particles. See the abstract and figure 1. A filter member is provided to filter the resulting ultrasonicated stream containing a dispersion of de-agglomerated primary particles. See the abstract and figure 1 (filter 30). A second ultrasonicator can be provided to ultrasonicate the filter member so as to further break up agglomeration. See the abstract and figure 1 (note the ultrasonic transducers that the be incorporated in the filter).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawasaki to further provide a ultrasonicator for the filter as suggested by '459 with an expectation of desirable coating results, because Kawasaki teaches a desirable sonication process to provide dispersed particles that includes filtration of the treated stream, and '459 teaches that it is desirable to further provide an ultrasonicator for a filter member after sonicating a stream of dispersed particles to break up the agglomeration so as to provide further de-agglomeration. The second sonicator treats the filter and thus can be used whether the coater is active or inactive, as long as the filtration process was desirably occurring.

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10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view of Hochberg as applied to claims 1, 4-7, 10, 12, 16-20 and 27 above, and further in view of Min et al (US 4112549).

Kawasaki in view of Hochberg teaches all the features of these claims except the gas carrier vehicle.

Min teaches a process for sonicating a stream containing a dispersion of agglomerated primary particles. Column 2, line 50 through column 3, line 10. The sonicated stream is further filtered. Column 4, lines 20-30. The stream includes a gas carrier, air. Column 3, lines 30-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawasaki in view of Hochberg to use the sonicating process to also sonicate particles in dispersion in a gas stream as suggested by Min with an expectation of desirable coating results, because Kawasaki in view of Hochberg teaches a desirable sonication process to provide dispersed particles, and Min teaches that it is desirable to sonicate suspended in air as well as liquid.

#### *Response to Arguments*

11. Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive.

As to claim 1, applicant argues (at page 4 of the amendment) that the Examiner has not pointed out where in Kawasaki the combination of coating the resulting sonicated stream onto a

photoreceptor substrate can be found. Applicant argues that the examiner has not pointed out in either reference a dispersion of agglomerated primary particles. Applicant further argues (at pages 6-7 of the amendment) that the requisite motivation must come from the prior art, not applicant's invention. Further, according to applicant, the Examiner is using an impermissible, "obvious to try" analysis, listing items (1) -(6) and stating that it would have been "obvious to try" to modify and vary these parameters or try these 6 possible choices to arrive at applicant's invention where the prior art gave no indication of which parameters were critical and no suggestion is found within the references themselves for these 6 modifications. Applicant goes on to argue that the Examiner has used impermissible "hindsight reconstruction". The Examiner has reviewed these arguments, however, the rejection is maintained. The rejection of claim 1 is based on a combination of the references to Kawasaki and Hochberg. As discussed in the *Grounds of Rejection* above, the Examiner has provided a discussion as to why it would have been obvious to modify Kawasaki to combine with Hochberg, resulting in the suggestion of the rejected claims. Thus, as to the coating of the resulting stream onto a coated photoreceptor surface, the suggestion of coating onto a photoreceptor surface is clearly provided by the teaching of Hochberg as to the desirability of coating a dispersion of particles onto a photoreceptor surface (see the discussion in the rejection above). As to the teaching of a "dispersion of agglomerated primary particles", the Examiner has noted that Kawasaki does not specifically teach that the particles are "agglomerated" before the sonication treatment starts. However, the Examiner notes the teaching that the particles in the liquid tend to agglomerate over time (see column 1, lines 45-60) and the teaching in Hochberg that the particles in the liquid agglomerate, providing

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agglomerated particles that must be treated (see column 3, lines 20-35). As to the suggestion that the initial dispersion of Kawasaki be provided with at least some agglomerated particles, the Examiner notes the discussion in MPEP 2144 that:

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (setting forth test for implicit teachings); In re Eli Lilly & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (examiner must present convincing line of reasoning supporting rejection); and Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning).

Furthermore, the Examiner notes the discussion in MPEP 2144.01 as to using an implicit disclosure

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968) . . ."

At the least, the disclosure of the two references would suggest to one with the knowledge generally available to one of ordinary skill in the art that it would be obvious to provide the

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treatment of Kawasaki to particles both agglomerated and non-agglomerated, given the teaching of Kawasaki that the particles in the liquid tend to agglomerate over time and the teaching in Hochberg that the particles in the liquid agglomerate, providing agglomerated particles that must be treated, because as discussed in the rejection above, Kawasaki provides no limitation as to how long the dispersion can be made before the sonication treatment must be carried out. As to the six elements discussed by the Examiner as not being specifically taught by Kawasaki, the suggestion to provide these elements was not based on an impermissible "obvious-to-try" analysis, and the Examiner has provided no statement that it would be "obvious-to-try" to modify and vary these parameters. Rather the Examiner has made the rejection based on the combination with Hochberg and the rationale as discussed in MPEP 2144 and 2144.01 as discussed above.

Applicant has provided no specific indication, other than the "photoreceptor surface" and "agglomerated particles" discussed above as to what improper reasoning the Examiner used. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Here, applicant has provided no indication as to what was improperly gleaned only from applicant's disclosure.

As to applicant's arguments as to claims 5 and 6, the Examiner notes that as discussed in the *Grounds of Rejection* above, Kawasaki (the primary reference) teaches particle amounts and diameters as claimed (see the specific discussions of claims 5 and 6 in paragraph 7 above).

Applicant has provided no indication as to why these citations by the Examiner are incorrect. The combination of references suggests the claimed process, for the reasons as discussed with regard to claim 1 above.

As to applicant's arguments as to claims 10 and 12, the Examiner notes that as discussed in the *Grounds of Rejection* above, Kawasaki (the primary reference) specifically teaches the continuous phase liquid solvent and the ultrasonic member (see the specific discussion of claims 10 and 12 in paragraph 7). Applicant has provided no indication as to why these citations by the Examiner are incorrect. The combination of references suggests the claimed process, for the reasons as discussed with regard to claim 1 above.

As to applicant's arguments as to claims 16-19: As to claim 16, the Examiner has indicated that it is conventionally known in the art of filtering that stream pressure affects the results of filtering, and applicant has not traversed this position of the Examiner. As discussed in MPEP 2144.03, if applicant does not traverse the Examiner's assertion as to common knowledge in the art, this should be indicted in the next Office Action that this common knowledge is taken to be admitted prior art. The Examiner now takes this position that it is admitted prior art that in the art of filtering stream pressure affects the results of filtering, since applicant has provided no traversal. As to claim 17, as discussed in the *Grounds of Rejection* above, Kawasaki (the primary reference) specifically teaches that the re-agglomeration of the

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primary particles can occur (see the specific discussion of claim 17 in paragraph 7). Applicant has provided no indication as to why this citation by the Examiner is incorrect. As to claim 18, the Examiner has indicated as to why it would be suggested to analyze the stream and applicant has not traversed the Examiner's reasoning. As to claim 19, as discussed in the *Grounds of Rejection* above, Kawasaki (the primary reference) specifically teaches that the stream can further comprise a surfactant (see the specific discussion of claim 19 in paragraph 7). Applicant has provided no indication as to why this citation by the Examiner is incorrect. The combination of references suggests the claimed process, for the reasons as discussed with regard to claim 1 above.

As to applicant's arguments in regard to claim 27, the combination of Kawasaki and Hochberg provides the liquid dispersion of agglomerated primary particles and the coater as claimed, for the reasons as discussed with regard to claim 1 above.

As to applicant's arguments in regard to claims 8 and 9, the Examiner notes that in the *Grounds of Rejection* above, in the description of Kawasaki in paragraph 7 the Examiner provided a discussion that Kawasaki taught the filtration of the resulting sonicated stream. The Examiner also notes that '459 teaches filtering undesirably large particles as discussed in paragraph 8 above. As to the filtration of undesirable contaminants as claimed, the Examiner notes that since '459 teaches removing overly large particles, these "overly large particles" would be undesirable contaminants within the meaning of the phrase.

As to applicant's arguments in regard to claims 8-9 and 15, the Examiner has provided '459 as providing the suggestion of the ultrasonicator. Applicant appears to be arguing that '459 is not analogous art to Kawasaki and Hochberg, because it is directed to a treatment of a

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radioactive fuel residue. As to the issue of non-analogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, at the least, the reference to '459 is reasonably pertinent to the particular problem with which applicant and the other prior art references were concerned. All references are concerned with providing unagglomerized particles in a stream using and ultrasonic treatment and providing a filtration at the end of the stream. '459 goes on to indicate the desirability of providing an ultrasonic treatment to the filter itself.

As to applicant's arguments in regard to claim 21, as to the combination of Kawasaki and '459 and the suggestion to make the combination, the Examiner finds that the art is analogous suggested for the reasons given in the *Grounds of Rejection* above and in the paragraph above (discussing claims 8-9 and 15).

As to applicant's arguments with regard to claim 23, it would be suggested that the receiver would be substantially free of agglomerated primary particles, because the Kawasaki treatment provides a coating that only "sparingly suffers agglomeration", which would appear to read on "substantially free", given that "substantially free" does not mean "completely free" but rather "almost" free, the same as a "sparing" amount. Furthermore, '459 teaches that using a second sonicator for the filter further breaks up agglomeration, and therefore if the second sonicator was used as suggested by '459, even fewer agglomerated particles would be present in the final coating.

As to applicant's arguments with regards to claims 25 and 26, the filtration treatment is not a coating application but rather a treatment before coating application, and thus, there is no limitation as to whether it occurs during or not during coating.

As to applicant's arguments with regards to claim 11, the Examiner has specifically provided the motivation to provide a gas carrier as suggested by Min as discussed in the *Grounds of Rejection* above. Applicant has provided no arguments as to why this motivation was improper. As discussed with regard to claim 1 above, motivation or rationale does not have to come directly from the references cited. Furthermore as to the argument that Min is non-analogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Kawasaki, Hochberg and Min are all at least reasonably pertinent to the particular problem with which the applicant was concerned, that is providing a stream of unagglomerated particles after a sonicating treatment. As to the relationship of '459 to claim 11, the Examiner notes that this is not part of the claim 11 rejection.

### *Conclusion*

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (703) 308-0078. The examiner can normally be reached on M-F(7:00-4:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*Kath A. Bareford*  
KATHERINE A. BAREFORD  
PRIMARY EXAMINER  
GROUP 1100, 700